



In the Claims

Please amend claim 9, and add new claims 74-84 as follows:

1. (Previously Presented) A switching module for electronic signal transmission comprising:

a first side with a plurality of connectors including a first group of three connectors and a second group of three connectors;

a second side with a plurality of connectors, including a first jack and a second jack, each of the jacks having a spring contact tip conductor, a second tip conductor, a spring contact ring conductor, a second ring conductor and a shield conductor with a normal closed connection between the spring contact and second tip conductors and a normal closed connection between the spring contact and second ring conductors, each of the jacks configured such that insertion of a plug opens the normal closed connections and electronically connects a tip of the plug to the spring contact tip conductor, a ring of the plug to the spring contact ring conductor, and a shield of the plug to the shield conductor;

a first plurality of circuits connecting the shield conductor of each of the jacks with a connector within each of the first and second groups of first side connectors;

a plurality of two position switches having an open position and a closed position; and

a second plurality of circuits, each including one of the two position switches, one of the circuits linking the spring contact tip conductor of the first jack with the second tip conductor of the second jack, another of the circuits linking the spring contact ring conductor of the first jack with the second ring conductor of the second jack, another of the circuits linking the second tip conductor of the first jack with the second tip conductor of the second jack, and another of the circuits linking the second ring conductor of the first jack with the second ring conductor of the second jack.

2. (Original) The switching module of claim 1, wherein the first side connectors are card edge connectors.

3. (Original) The switching module of claim 1, wherein the two position switches are sliding switches.

4. (Original) The switching module of claim 1, wherein the plurality of first side connectors includes a third group of three connectors and a fourth group of three connectors, and the plurality of second side connectors includes a third jack and a fourth jack, the third and fourth groups of first side connectors and the third and fourth jacks being connected to each other in the same manner that the first and second groups of first side connectors and the first and second jacks are connected with each other.

5. (Previously Presented) The switching module of claim 1, wherein the module includes designation lenses, the second side connectors being accessible through an outer surface of the module, the outer surface having mounting slots located adjacent to the second side connectors, the outer surface of the module having a width, each of the designation lenses comprising:

- a first side and an opposing, spaced apart second side;
- a first end and an opposing, spaced apart second end;
- a front face and a rear face extending from the first side to the second side and from the first end to the second end;
- a first rear wall and a second rear wall extending rearward from the rear face along the first and second sides, respectively, and defining first and second rear mounting flats, respectively;
- mounting tabs extending rearward from the rear mounting flats;
- the rear face, the first and second rear walls of each of the designation lenses, and outer surface of the module cooperating to define a space for receiving an indicia related to an adjacent second side connector;
- the lenses each being formed of a transparent material to allow the indicia within the space to be seen through the lenses;
- the lenses each being sized so that when mounted to the outer surface the lenses have a lens width approximately the same as the width of the outer surface.

6. (Previously Presented) The switching module of claim 1, wherein the circuitry including the two position switches, which connect each of the first and second jacks with the first and second groups of first side connectors, can be configured in three switching states:

- (a) all of the switches being open;
- (b) the switch in the circuit connecting the spring contact tip conductor of the first jack with the second tip conductor of the second jack, and the switch in the circuit connecting the spring contact ring conductor of the first jack with the second ring conductor of the second jack being closed and a remainder of the switches being open;

and

- (c) the switch in the circuit connecting the second tip conductor of the first jack with the second tip conductor of the second jack, and the switch in the circuit connecting the second ring conductor of the first jack with the second ring conductor of the second jack being closed and a remainder of the switches being open.

7. (Previously Presented) The switching module of claim 1, wherein the first side connectors include a common ground connection and the second plurality of circuits including one of the plurality of two position switches connects the shield conductor of each of the jacks with the common ground connector on the first side.

8. (Original) The signal module of claim 1, wherein the plurality of circuits includes a circuit board extending in a first direction between a first face of the switching module and a second face of the switching module, the first side connectors located at the first face of the switching module, the second side connectors located at the second face of the connecting module, and the two position switches positioned on the circuit board.

9. **(Currently Amended)** A method of configuring an electronic signal transmission circuit, comprising:

- providing a switching module for electronic signal transmission comprising:

a first side with a plurality of connectors including a first group of three connectors and a second group of three connectors;

a second side with an even number of connectors grouped into pairs, each pair of connectors including a first jack and a second jack, each of the jacks having a spring contact tip conductor, a second tip conductor, a spring contact ring conductor, a second ring conductor and a shield conductor with a normal closed connection between the spring contact and second tip conductors and a normal closed connection between the spring contact and second ring conductors, each of the jacks configured such that insertion of a plug opens the normal closed connections and electronically connects a tip of the plug to the spring contact tip conductor, a ring of the plug to the spring contact ring conductor, and a shield of the plug to the shield conductor;

a plurality of two position switches having an open position and a closed position; and

a plurality of circuits, each including one of the two position switches, one of the circuits linking the spring contact tip conductor of the first jack with the second tip conductor of the second jack, another of the circuits linking the spring contact ring conductor of the first jack with the second ring conductor of the second jack, another of the circuits linking the second tip conductor of the first jack with the second tip conductor of the second jack, and another of the circuits linking the second ring conductor of the first jack with the second ring conductor of the second jack[.];

placing all the two position switches into an open condition so that each of the connectors on the first side is connected directly with a conductor within one of the first and second jacks on the second side.

10. (Previously Presented) The method of claim 9, wherein the even number of connectors grouped into pairs includes at least a first pair, and wherein the two position switch in the circuit connecting the second tip conductor of the first jack in the first pair with the second tip conductor of the second jack in the first pair is closed, and the two

position switch in the circuit connecting the second ring conductor of the first jack in the first pair and the second ring conductor of the second jack in first the pair is closed.

11. (Previously Presented) The method of claim 9, wherein the even number of connectors grouped into pairs includes at least a first pair, and wherein the two position switch in the circuit connecting the spring contact tip conductor of the first jack in the first pair with the second tip conductor of the second jack in the first pair is closed, and the two position switch in the circuit connecting the spring contact ring conductor of the first jack of the first pair with the second ring conductor of the second jack of the first pair is closed.

12. (Original) The method of claim 9, wherein the two position switch in the circuit connecting the shield conductor of a jack with the ground connector on the first side is closed.

13. (Original) The method of claim 9, further comprising the steps of:
inserting the switching module into a chassis;
subsequently removing the switching module from the chassis;
switching at least one of the two position switches in the removed switching module; and
reinserting the switching module into the chassis.

14. (Previously Presented) An electronic signal transmission system comprising:
(a) a switching module for signal transmission including:
(1) a first side with a plurality of connectors including a first group of three connectors and a second group of three;
(2) a second side with an even number of connectors grouped into pairs, each pair of connectors including a first jack and a second jack, each of the jacks having a spring contact tip conductor, a second tip conductor, a spring contact ring conductor, a second ring conductor and a shield conductor with a normal closed connection between the spring contact and second tip conductors and a normal closed

connection between the spring contact and second ring conductors, each of the jacks configured such that insertion of a plug opens the normal closed connections and electronically connects a tip of the plug to the spring contact tip conductor, a ring of the plug to the spring contact ring conductor, and a shield of the plug to the shield conductor;

(3) a plurality of two position switches having an open position and a closed position; and

(4) a plurality of circuits, each including one of the two position switches, one of the circuits linking the spring contact tip conductor of the first jack with the second tip conductor of the second jack, another of the circuits linking the spring contact ring conductor of the first jack with the second ring conductor of the second jack, another of the circuits linking the second tip conductor of the first jack with the second tip conductor of the second jack, and another of the circuits linking the second ring conductor of the first jack with the second ring conductor of the second jack

(b) a connecting module including:

(1) a plurality of first side connectors which electronically link to the first side connectors of the switching module;

(2) a second side with a plurality of connectors for attaching to a plurality of cables; and

(3) a plurality of circuits electronically linking the first side connectors of the connecting module to the second side connectors of the connector module;

(c) a chassis holding the switching module and the connecting module adjacent to one another, wherein each of the first side connectors of the switching module is electronically connected to a corresponding first side connector of the plurality of first side connectors of the connecting module.

15. (Previously Presented) The electronic signal transmission system of claim 14, wherein the first side connectors of the switching module are card edge connectors and the first side connectors of the connectors module are mounted in a slot, the slot being configured to electronically link the first side connectors of the connecting module with the first side connectors of the switching module.

16. (Original) The electronic signal transmission system of claim 14, wherein a plurality of switching modules may be connected to the connecting module.
17. (Previously Presented) The electronic signal transmission system of claim 16, wherein the chassis holds a plurality of connecting modules and a plurality of switching modules may be connected to each of the connecting modules.
18. (Previously Presented) The electronic signal transmission system of claim 16, wherein designation lenses for receiving indicia are located on the second side of the switching modules adjacent to each of the jacks.
19. (Original) The electronic signal transmission system of claim 14, wherein the plurality of circuits includes a circuit board extending in a first direction between a first face of the switching module and a second face of the switching module, the first side connectors located at the first face of the switching module, the second side connectors located at the second face of the connecting module, and the two position switches positioned on the circuit board.
20. (Previously Presented) An electronic signal transmission module comprising:
a front defining an even number of jacks paired together, each of the jacks including tip, ring, and shield contact springs;
a rear with card edge connectors;
a circuit board with a first plurality of circuits electronically connecting the jack contact springs with the card edge connectors; and
a second plurality of circuits including a plurality of two position switches mounted on the circuit board which are electronically linked to the first plurality of circuits, the second plurality of circuits connecting the tip and ring contact springs of each of the jacks paired together.

21. (Previously Presented) The electronic signal transmission module of claim 20, wherein designation lenses for receiving indicia are located on the front adjacent to each of the jacks.
22. (Withdrawn)
23. (Withdrawn)
24. (Withdrawn)
25. (Cancelled)
26. (Cancelled)
27. (Cancelled)
28. (Cancelled)
29. (Previously Presented) A patching device comprising:
circuitry having first and second spring assemblies, each of the first and second spring assemblies including a tip spring, a normal spring corresponding to the tip spring, a ring spring, and a normal spring corresponding to the ring spring; and
a switch device having a plurality of switch positions for changing the circuitry between a no normal configuration, a full normal configuration, and a half normal configuration.
30. (Previously Presented) The patching device of claim 29, further comprising an electrical connector electrically connected to the first and second spring assemblies.

31. (Previously Presented) The patching device of claim 30, wherein the switch device is electrically positioned between the electrical connector and the first and second spring assemblies.
32. (Previously Presented) The patching device of claim 31, wherein the electrical connector is electrically connected to the first and second spring assemblies by a circuit board, and wherein the switch device is mounted to the circuit board.
33. (Previously Presented) The patching device of claim 29, wherein the switch device includes a plurality of 2-position switches.
34. (Previously Presented) The patching device of claim 29, further comprising a module, wherein the first and second spring assemblies and the switch device are included as part of the module.
35. (Previously Presented) The patching device of claim 34, wherein the module includes a front end and a rear end, the front end defining patch plug ports for accessing the first and second spring assemblies.
36. (Previously Presented) The patching device of claim 35, further comprising a rear connector positioned at the rear end of the module, the rear connector being electrically connected to the first and second spring assemblies.
37. (Previously Presented) The patching device of claim 35, wherein the module further includes a first side and a second side extending between the front end and the rear end, the switch device being positioned at one of the first and second sides of the module.
38. (Previously Presented) A patching device comprising:

circuitry including first and second spring assemblies, each of the first and second spring assemblies including a tip spring, a normal spring corresponding to the tip spring, a ring spring, a normal spring corresponding to the ring spring;

the circuitry also including a first sleeve ground corresponding to the first spring assembly and a second sleeve ground corresponding to the second spring assembly; and

a switch device having a plurality of switch positions for changing the circuitry between an independently-ground configuration and a commonly-ground configuration.

39. (Previously Presented) The patching device of claim 29, wherein the patching device includes a first sleeve ground corresponding to the first spring assembly and a second sleeve ground corresponding to the second spring assembly, and wherein the switch device is operable to change the circuitry between an independently-ground configuration and a commonly-ground configuration.

40. (Previously Presented) The patching device of claim 29, wherein the switch device includes a plurality of switches.

41. (Previously Presented) The patching device of claim 40, wherein the switches are arranged in a bank.

42. (Previously Presented) The patching device of claim 40, wherein the switches are DIP switches.

43. (Previously Presented) The patching device of claim 29, further comprising a chassis and a module that removeably mounts within the chassis, the first and second spring assemblies being part of the module so as to be removeable from the chassis with the module.

44. (Previously Presented) The patching device of claim 43, wherein the switch device is part of the module so as to be removeable from the chassis with the module.

45. (Previously Presented) The patching device of claim 44, wherein the chassis includes a front side and a rear side, and wherein the module is removeable from the chassis through the front side of the chassis.
46. (Previously Presented) The patching device of claim 38, wherein the switch device includes a plurality of switches.
47. (Previously Presented) The patching device of claim 46, wherein the switches are arranged in a bank.
48. (Previously Presented) The patching device of claim 46, wherein the switches are DIP switches.
49. (Previously Presented) The patching device of claim 38, further comprising a chassis and a module that removeably mounts within the chassis, the first and second spring assemblies being part of the module so as to be removeable from the chassis with the module.
50. (Previously Presented) The patching device of claim 49, wherein the switch device is part of the module so as to be removeable from the chassis with the module.
51. (Previously Presented) The patching device of claim 50, wherein the chassis includes a front side and a rear side, and wherein the module is removeable from the chassis through the front side of the chassis.
52. (Previously Presented) A patching module comprising:
a module housing including a front and a back;
first and second patch plug ports located at the front of the module housing;
circuitry having first and second spring assemblies carried by the module housing,
each of the first and second spring assemblies including a tip spring, a normal spring
corresponding to the tip spring, a ring spring, and a normal spring corresponding to the

ring spring, the first spring assembly being accessible through the first patch plug port and the second spring assembly being accessible through the second patch plug port; and a switch device for changing the circuitry between a no normal configuration, a full normal configuration, and a half normal configuration, the switch device being carried by the module housing.

53. (Previously Presented) The patching device of claim 52, wherein the switch device includes a plurality of switches.

54. (Previously Presented) The patching device of claim 53, wherein the switches are arranged in a bank.

55. (Previously Presented) The patching device of claim 53, wherein the switches are DIP switches.

56. (Previously Presented) The patching device of claim 52, further comprising fasteners for removeably mounting the module housing to a chassis.

57. (Previously Presented) A patching device comprising:
circuitry having first and second spring assemblies, each of the first and second spring assemblies including a tip spring, a normal spring corresponding to the tip spring, a ring spring, and a normal spring corresponding to the ring spring; and
means for switching the circuitry between a no normal configuration, a full normal configuration, and a half normal configuration.

58. (Previously Presented) The patching device of claim 57, further comprising a module, wherein the first and second spring assemblies and the means for switching are included as part of the module.

59. (Previously Presented) The patching device of claim 58, wherein the module includes a front end and a rear end, the front end defining patch plug ports for accessing the first and second spring assemblies.

60. (Previously Presented) The patching device of claim 57, wherein the patching device includes a first sleeve ground corresponding to the first spring assembly and a second sleeve ground corresponding to the second spring assembly, and wherein the means for switching is operable to change the circuitry between an independently-ground configuration and a commonly-ground configuration.

61. (Previously Presented) The patching device of claim 57, further comprising a chassis and a module that removeably mounts within the chassis, the first and second spring assemblies and the means for switching being part of the module so as to be removeable from the chassis with the module.

62. (Previously Presented) The patching device of claim 57, further comprising a module having a module housing, the module housing including a front end having patch plug ports, the first and second spring assemblies and the means for switching being mounted to the module housing.

63. (Previously Presented) A patching module comprising:
a module housing including a front and a back;
first and second patch plug ports located at the front of the module housing;
circuitry having first and second spring assemblies carried by the module housing,
each of the first and second spring assemblies including a tip spring, a normal spring
corresponding to the tip spring, a ring spring, and a normal spring corresponding to the
ring spring, the first spring assembly corresponding to the first patch plug port, and the
second spring assembly corresponding to the second patch plug port; and
the circuitry further including a grouping of contacts that provide electrical
connection locations for changing the circuitry between a no normal configuration, a full

normal configuration, and a half normal configuration, the grouping of contacts being carried by the module housing.

64. (Previously Presented) The patching device of claim 63, further comprising switches for selectively providing electrical connections between the electrical connection locations provided by the contacts.

65. (Previously Presented) The patching device of claim 64, wherein the switches include 2-position switches.

66. (Previously Presented) A patching device comprising:
a chassis;
a module removeably mountable to the chassis, the module including:
a) first and second patch plug ports;
b) circuitry having first and second spring assemblies, each of the first and second spring assemblies including a tip spring, a normal spring corresponding to the tip spring, a ring spring, and a normal spring corresponding to the ring spring, the first spring assembly being accessible through the first patch plug port and the second spring assembly being accessible through the second patch plug port; and
c) a switch device for changing the circuitry between a no normal configuration, a full normal configuration, and a half normal configuration.

67. (Previously Presented) The patching device of claim 66, wherein the switch device includes a plurality of switches.

68. (Previously Presented) The patching device of claim 67, wherein the switches are arranged in a bank.

69. (Previously Presented) The patching device of claim 67, wherein the switches are DIP switches.

70. (Previously Presented) The patching device of claim 66, further comprising fasteners for removeably mounting the module to the chassis.
71. (Previously Presented) A patching device comprising:
a chassis;
a module removeably mountable to the chassis, the module including:
a) first and second patch plug ports;
b) circuitry having first and second spring assemblies, each of the first and second spring assemblies including a tip spring, a normal spring corresponding to the tip spring, a ring spring, and a normal spring corresponding to the ring spring, the first spring assembly corresponding to the first patch plug port, and the second spring assembly corresponding to the second patch plug port; and
c) a grouping of contacts that provide electrical connection locations for changing the circuitry between a no normal configuration, a full normal configuration, and a half normal configuration.
72. (Previously Presented) The patching device of claim 71, further comprising switches for selectively providing electrical connections between the electrical connection locations provided by the contacts.
73. (Previously Presented) The patching device of claim 72, wherein the switches include 2-position switches.
74. (New) A patching device comprising:
a chassis having a front side and a back side, the front side defining a front opening;
a plurality of modules mountable to the chassis such that each individual module of the plurality can be mounted independent of the other modules by insertion of the independent module through a front opening in the chassis, each of the modules including:
a) first and second patch plug ports;

b) circuitry having first and second spring assemblies, each of the first and second spring assemblies including a tip spring, a normal spring corresponding to the tip spring, a ring spring, and a normal spring corresponding to the ring spring, the first spring assembly being accessible through the first patch plug port and the second spring assembly being accessible through the second patch plug port; and

c) a switch device for changing the circuitry between a no normal configuration, a full normal configuration, and a half normal configuration.

75. (New) The patching device of claim 74, wherein the switch device includes a plurality of switches.

76. (New) The patching device of claim 75, wherein the switches are DIP switches.

77. (New) The patching device of claim 74, wherein each of the modules is removeably mountable to the chassis.

78. (New) The patching device of claim 77, further comprising fasteners for removeably mounting the modules to the chassis.

79. (New) The patching device of claim 77, wherein the switch device is part of the module so as to be removeable from the chassis with the module.

80. (New) A patching device comprising:

a chassis;

a module mountable to the chassis, the module including:

a) a dielectric body defining a front face;

b) first and second patch plug ports formed in the front face of the dielectric body;

c) first and second spring assemblies supported by the dielectric body, each of the first and second spring assemblies including a tip spring, a normal spring corresponding to the tip spring, a ring spring, and a normal spring corresponding to the

ring spring, the first spring assembly being accessible through the first patch plug port and the second spring assembly being accessible through the second patch plug port; and

d) a switch device for changing the circuitry between a no normal configuration, a full normal configuration, and a half normal configuration, the switch device being supported by the dielectric body.

81. (New) The patching device of claim 80, further include flanges configured to receive fasteners to removeably mount the module to the chassis.

82. (New) The patching device of claim 81, wherein the flanges include upper and lower flanges located adjacent the front face of the dielectric body.

83. (New) The patching device of claim 80, wherein the chassis has a front side and a back side, the module being mountable to the front side of the chassis.

84. (New) A patching device comprising:

a chassis having a front side and a back side;

a module mountable to the chassis, the module including:

a) a dielectric body defining a front face;

b) upper and lower mounting extensions located at opposite ends of the front face of the dielectric body, the upper and lower mounting extensions including mounting holes for receipt of fasteners for mounting the module to chassis holes formed in the chassis, the chassis holes being located at the front side of the chassis;

c) first and second patch plug ports formed in the front face of the dielectric body;

d) first and second spring assemblies carried by the dielectric body, each of the first and second spring assemblies including a tip spring, a normal spring corresponding to the tip spring, a ring spring, and a normal spring corresponding to the ring spring, the first spring assembly being accessible through the first patch plug port and the second spring assembly being accessible through the second patch plug port; and

e) a switch device for changing the circuitry between a no normal configuration, a full normal configuration, and a half normal configuration, the switch device being carried by the dielectric body.